WE CLAIM:

1. A transparent port for a high rate network comprising:

a receiver unit for receiving an incoming signal of an arbitrary data rate R1 and extracting a user signal and a data clock;

a programmable link termination PLT for reporting a set of performance parameters for said incoming signal; and

a processing unit for recognizing a plurality of provisioned protocols, selecting a first protocol characterizing said incoming signal and configuring said PLT according to said first protocol.

2. A transparent port as claimed in claim 1, wherein said PLT translates said user signal into a data signal whenever said rate R1 corresponds to a provisioned first protocol and passes said user signal unchanged whenever said rate R1 is not recognized by said processing unit.

3. A transparent port as claimed in claim 1, wherein said PLT performs one or more of a framing, an error count, a code conversion, and a parity correction operation.

4. A transparent port as claimed in claim 2, further comprising a mapping unit for rearranging the bits of said data signal into a container signal of a rate R corresponding to a second protocol.

5. A transparent port as claimed in claim 1, wherein said PLT comprises logic gates configured to perform measurement of a provisioned parameter.

6. A transparent port as claimed in claim 1, wherein said PLT is a programmable gate array.

7. A transparent port as claimed in claim 1, wherein said set of performance parameters includes a previous section fail indicator.

8. A transparent port as claimed in claim 1, wherein said set of performance parameters includes one or more of signal strength, clock continuity and jitter.

9. A transparent port as claimed in claim 1, wherein said PLT performs one or more of a framing, an error count, a code conversion, and a parity correction operation.

10. A transparent port for a high rate network comprising:

a programmable link instigation PLI for reporting a set of performance parameters for a data signal of an arbitrary rate R1';

a processing unit for recognizing a plurality of provisioned protocols, selecting a first protocol characterizing said data signal and configuring said PLI according to said first protocol; and

a transmitter unit connected to said PLI for launching an outgoing signal of said first protocol, comprising user information within said data signal.

11. A transparent port as claimed in claim 10, wherein said PLI translates said data signal into a user signal whenever said rate R1' corresponds to a provisioned first protocol, and passes said data signal unchanged whenever said rate R1 is not recognized by said processing unit.

12. A transparent port as claimed in claim 10, further comprising a reverse mapping unit for rearranging the bits of a container signal of a second protocol into said data signal of said first protocol.

13. A transparent port as claimed in claim 10, wherein said PLI comprises logic gates configured to perform measurement of a provisioned parameter.

14. A transparent port as claimed in claim 10, wherein said PLI is a programmable gate array.

15. A transparent port as claimed in claim 10, wherein said set of performance parameters includes a previous section fail indicator.

16. A transparent port as claimed in claim 10, wherein said set of performance parameters includes signal strength, clock continuity and jitter.

17. A transparent port as claimed in claim 10, wherein said PLI performs one or more of a framing, an error count, a code conversion, and a parity correction operation.

18. A method for transmitting a continuous digital signal of an arbitrary rate R1 over a synchronous network as a transparent tributary, comprising:

at a transmit terminal, selecting a container signal of a rate R, higher than said rate R1;

detecting the rate R1 of said continuous digital signal and determining a first protocol corresponding to said rate R1;

measuring according to a first protocol a set of performance parameters on said continuous signal and reporting said set of performance parameters; and

translating said set of performance parameters from said first protocol to a second protocol characterizing said container signal and providing said translated set into said container signal.

19. A method as claimed in claim 18, further comprising transmitting said container signal from said transmit terminal to a receive terminal.

20. A method as claimed in claim 18, further comprising informing said receive terminal of said rate R1 and of said first protocol through signaling.

21. A method as claimed in claim 20, further comprising:

at the receive terminal, recovering said container signal;

extracting said set of performance parameters from said container signal; and

reconstructing said continuous signal based on said rate R1.

22. A method as claimed in claim 21, further comprising transmitting said continuous signal with said set of performance parameter to a user.